CIRCUIT THEORY AND APPLICATIONS, VOL. 9, iii–iv (1981)

CONTENTS
Volume 9, Issue Nos. 1–4

International Journal of
CIRCUIT THEORY AND APPLICATIONS

Issue No. 1, January 1981

Algorithms for Solution Updating Due to Large Changes in System Parameters: I. N. Hajj . . . 1

Formulation of Equations in Terms of Scalar Functions for Lumped Non-linear Networks: M. M. Milić and L. A. Novak 15

Exact Analysis of Inhomogeneous Ladder Networks Having a Tridiagonal Interaction Matrix: S. B. Haley 33

Transmission Parameter Representation of Non-uniform Transmission Line Green's Functions: S. B. Haley 41

Singular Perturbations in the State Space Approach of Linear Electrical Networks: P. Sannuti . . 47

Experimental Noise Effects on Transfer Function—Phase Evaluations Via Hilbert Transforms: Application to Optical Fibres: P. Bassi and M. Zoboli 59

Initial Vertex Partitioning and Testing Isomorphism of Graphs and Digraphs: K. V. S. Bhat and M. H. Rahnavard 67

The Adjoint Switched Capacitor Network and Its Application to Frequency, Noise and Sensitivity Analysis: J. Vandewalle, H. De Man and J. Rabaey 77

Lossless 2-Ports Between Non-reactive Terminations: M. Hasler 89

A Practical Closed Form Solution for Systems with Variable Eigenvalues Via Bilinear System Theory: W. Brandenbusch and W. Stehle 103

LETTER TO THE EDITOR 115

Issue No. 2, April 1981

Principles of Complex Wave Digital Filters: A. Fettweis 119

Lossless Chain Scattering Matrices and Optimum Linear Prediction: The Vector Case: P. Dewilde and H. Dym 135

On the Role of the Nevanlinna–Pick Problem in Circuit and System Theory: Ph. Delsarte, Y. Genin and Y. Kamp 177

Indexed or abstracted by 'Current Contents' and other leading Indexing/Abstracting Services.

The State-space Realization of an n-Dimensional Transfer Function: K. Gałkowski 189

Unification of Active Filters with Passive Sections Having a Single Internal Node: P. Bowron and A. S. S. Al-Kabbani 199

Optimal Selection of IC Fabrication Parameters: C. Karmokolias, W. M. Portnoy and R. E. Saeks . 211

Theory of an Iterative, Two Mode Transmission Network: C. R. Skipping, B. N. Moore and M. E. Oakes 217

LETTERS TO THE EDITOR 233

Issue No. 3, July 1981

On the Solvability and Computation of D.C. Transistor Networks: M. Tadeusiewicz 251

Filter Realization Using a Generalized Lagrange Polynomial Representation: F. C. Liu and T. G. Marshall, Jr. 269

A Routing System Based on a Single-row Router and its Wirability: S. Asahara, M. Odani, Y. Ogura, I. Shirakawa and H. Ozaki 285

A New Method of Inhomogeneous Ladder Network Synthesis: D. P. Brown 297

Necessary and Sufficient Conditions for Absolute Stability of Linear n-ports: E. Zeheb and E. Walach 311

A New Approach to Routing of Two-layer Printed Circuit Board: M. Marek-Sadowska and E. S. Kuh 331

LETTERS TO THE EDITOR 343

ANNOUNCEMENT 367

Issue No. 4, October 1981

Biquadratic n-dimensional Impedances: J. Gregor 369

Optimum Lowpass and Bandpass Filter Approximation: C. Beccari and M. Molinaro 379

A Possibility of Filling the Gap between Local and Global Passivity of Non-linear Networks and Some of its Consequences: T. Roska 393

Energy-related Concepts for Non-linear Time-varying n-ports: Passivity and Losslessness: J. W. Gannett and L. O. Chua 401

A Comparative Study of Multiple Amplifier Active *RC* Biquadratic Sections: P. R. Padukone and M. S. Ghausi 431

The Generation of Arbitrary-phase Polynomials by Recurrence Formulae: T. Henk 461

LETTERS TO THE EDITOR 479

Author Index 493